

DECLASSIFICATION

```
4         (a) selecting a desired target to be tracked;
5         (b) switching the automated video tracking
6 system to an automatic mode to initiate a tracking
7 sequence to automatically track the selected desired
8 target;
```

13 (d) reacquiring the desired target in manual
14 mode; and

1 2. The method of claim 1, wherein step (a)
2 comprises centering the desired target in a display of a
3 scene including the desired target.

-18-

1 4. The method of claim 1, wherein step (c)
2 comprises controlling an input device used to select the
3 desired target.

1 5. The method of claim 1, wherein step (d)
2 comprises centering the desired target in a display of a
3 scene including the desired target.

1 6. The method of claim 1, wherein step (e)
2 comprises releasing control of an input device used to
3 reacquire the desired target.

1 7. The method of claim 1, further comprising
2 the steps of:
3 calculating a confidence level indicating how
4 well the tracked target matches the selected desired
5 target; and
6 warning an operator if the confidence level
7 falls below a predetermined threshold.

1 8. An apparatus for reacquiring a target in an
2 automated video tracking system, the apparatus
3 comprising:
4 selecting means for selecting a desired target
5 to be tracked;
6 mode switching means for switching the
7 automated video tracking system to and from one of an
8 automatic mode to initiate a tracking sequence after

3 a video camera for capturing video image data
4 of a scene including the desired target;
5 pan and tilt camera motors for controlling a
6 pan and tilt, respectively of the video camera; and
7 a video display for displaying the video image
8 data;
9 wherein the input device is a joystick
10 operatively connected to the pan and tilt motors such
11 that movement of the joystick controls the movement of
12 the camera through the pan and tilt motors.

1 15. An automated video tracking system for
2 tracking and reacquiring a target, the automated video
3 tracking system comprising:
4 a video camera for capturing video image data
5 of a scene including a desired target;
6 pan and tilt camera motors for controlling a
7 pan and tilt, respectively of the video camera;
8 a video display for displaying the video image
9 data;
10 selecting means for selecting the desired
11 target to be tracked;
12 mode switching means for switching the
13 automated video tracking system to and from one of an
14 automatic mode to initiate a tracking sequence after
15 target selection to automatically track the selected
16 desired target and a manual mode;
17 reacquiring means for reacquiring the desired
18 target in manual mode if the automated video tracking

